

**Amendments to the Claims:**

The listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. (Currently amended) A directional audio delivery apparatus for a system, comprising:

a device that receives incoming encoded signals and provides decoded audio signals for use by the system;

audio conversion circuitry that is configured to produce ~~produces~~ ultrasonic signals based on the decoded audio signals provided by said device; and

a directional speaker that ~~outputs~~ is configured to output an ultrasonic output for a user based on the ultrasonic signals,

wherein said apparatus further comprises a beam-attribute control unit operatively connected to said directional speaker, said beam-attribute control unit being configured to electronically control an attribute of the output of said directional speaker,

wherein the ultrasonic output ~~generates~~ yields an audio output,

wherein the attribute controls the width of the beam of the audio output by controlling the ultrasonic frequency of the ultrasonic signals so that if the ultrasonic frequency is increased, the attenuation and the width of the beam are also increased,

wherein the ultrasonic frequency is controlled including by selecting a carrier frequency from a predetermined set of carrier frequencies,

wherein the predetermined set of carrier frequencies are generated via a plurality of substantially identical sources working together to generate each of the carrier frequencies within the predetermined set of carrier frequencies.

wherein the apparatus allows the ultrasonic frequency ~~is configured to have the capability of changing to be changed~~ by more than 50% to change the beam width, and

**PATENT**

wherein the beam-attribute control unit receives wireless inputs from the user via an electronic device to control the attribute.

2. (Previously Presented) A directional audio delivery apparatus as recited in claim 1, wherein said system is one of an audio system, a stereo system, a television system, a radio receiver, a Digital Versatile Disc (DVD) player, a compact disc (CD) player, and a Video Cassette Recorder (VCR) player.

3. (Previously Presented) A directional audio delivery apparatus as recited in claim 1, wherein said directional speaker is repositionable with respect to said system.

4. (Cancelled)

5. (Previously presented) A directional audio delivery apparatus as recited in claim 1, wherein said beam-attribute control unit is also configured to electronically control a beam direction of the audio output of said directional speaker so that the beam direction of the audio output can be changed.

6. (Previously presented) A directional audio delivery apparatus as recited in claim 5,

wherein the beam direction depends on the position of the electronic device, and

wherein as the position of the electronic device changes, the beam direction can automatically change.

7. (Previously presented) A directional audio delivery apparatus as recited in claim 1, wherein said directional speaker has a plurality of separately controllable regions, and wherein said beam-attribute control unit activates one or more of the controllable regions to control the audio output from said directional speaker.

**PATENT**

8. (Currently amended) A directional audio delivery apparatus as recited in claim 1, wherein said directional speaker has a curved surface, which can be a curved emitting surface or a curved reflecting surface, so that the audio output produced is intentionally configured to be non-collinear.

9. (Previously Presented) A directional audio delivery apparatus as recited in claim 1 further comprising one additional directional speaker to create stereo effect.

10. (Previously Presented) A directional audio delivery apparatus as recited in claim 1, wherein said apparatus further comprises a personalization unit operatively connected to said audio conversion circuitry, said personalization unit modifies the audio signals or the ultrasonic signals in accordance with an audio characteristic associated with the user of said apparatus.

11. (Previously Presented) A directional audio delivery apparatus as recited in claim 10, wherein the audio characteristic is provided to said directional audio delivery apparatus in a removable, portable data storage device that can be electrically connected to said apparatus.

12. (Previously Presented) A directional audio delivery apparatus as recited in claim 10, wherein the audio characteristic pertains to a hearing characteristic and/or a hearing preference associated with the user.

13. (Currently amended) A directional audio delivery apparatus as recited in claim 1, wherein said directional audio delivery apparatus further comprises an environmental adjustment unit that is configured to modify the audio signals or the ultrasonic signals in accordance with a piece of information from the environment in the vicinity of a portable handheld device used by the user of said apparatus.

**PATENT**

14. (Previously presented) A directional audio delivery apparatus as recited in claim 13, wherein the piece of information includes a noise level.

15. (Previously presented) A directional audio delivery apparatus as recited in claim 1, wherein the ultrasonic output from said directional speaker is reflected by at least one reflecting surface before propagating into the free space where the user of the apparatus is positioned, as the audio output.

16. (Currently amended) A method for providing directionally constrained audio to a user using a directional speaker, said method comprising:

- receiving audio signals to be delivered to the user from an audio device;
- converting the audio signals to ultrasonic signals;

- receiving, wirelessly, a beam attribute input from the user via a portable device, wherein the beam attribute input controls the width of the beam of the directionally constrained audio by controlling the ultrasonic frequency of the ultrasonic signals so that if the ultrasonic frequency is increased, the attenuation and the width of the beam are also increased; and

- driving the directional speaker in accordance with the ultrasonic signals for producing ultrasonic output to ~~generate~~ yield the directionally constrained audio,

- wherein the method allows the ultrasonic frequency to be changed is ~~configured to have the capability of changing~~ by more than 50% to change the beam width, and

- wherein the ultrasonic frequency is controlled including by selecting a carrier frequency from a predetermined set of carrier frequencies, and

- wherein the predetermined set of carrier frequencies are generated via a plurality of substantially identical sources working together to generate each of the carrier frequencies within the predetermined set of carrier frequencies.

17. (Cancelled)

**PATENT**

18. (Previously presented) A method as recited in claim 16, wherein said method further comprises altering the orientation of the directional speaker.

19. (Previously presented) A method as recited in claim 16, wherein the beam attribute input depends on a distance or a position of an object.

20. (Previously presented) A method as recited in claim 16, wherein the beam attribute input being received is automatically provided, not based on an input entered by the user.

21. (Previously presented) A method as recited in claim 16, wherein in view of a beam-attribute input, the direction of the directionally constrained audio is changed.

22. (Previously presented) A method as recited in claim 16,  
wherein the directional speaker has a plurality of segments to emit the directionally constrained audio and  
wherein the segments can be individually controlled for emitting the directionally constrained audio.

23. (Cancelled)

24. (Previously presented) A method as recited in claim 22, wherein the attribute controls at least one of the many segments to affect the width or the direction of the directionally constrained audio.

25. (Previously presented) A directional audio delivery apparatus as recited in claim 1, wherein the beam-attribute control unit is configured to change a beam width of the audio output of said directional speaker so that the beam width is diverging around the vicinity of the user.

## PATENT

26. (Cancelled)

27. (Currently amended) A ~~portable~~ handheld electronic remote control to ~~wirelessly control a directional audio delivery apparatus for a system for displaying video signals, the handheld electronic remote control comprising:~~

~~wherein the directional audio delivery apparatus including a device that receives incoming encoded signals and provides decoded audio signals for use by the system;~~

~~audio conversion circuitry that produces ultrasonic signals based on the decoded audio signals provided by said device; and~~

~~a directional speaker that outputs an ultrasonic output for a user based on the ultrasonic signals, with the ultrasonic output generating audio output;~~

~~wherein the audio output provides the audio portion of the video signals.~~

~~and a beam attribute control unit operatively connected to said directional speaker, said beam attribute control unit being configured to electronically control an attribute of the output of said directional speaker, the portable electronic remote control comprising:~~

~~a mechanical mechanism that allows a user to set a beam attribute input for the beam attribute control unit, wherein the beam attribute input controls the width of the beam of the audio output of the directional speaker by controlling the ultrasonic frequency of the ultrasonic signals so that if the ultrasonic frequency is increased, the attenuation and the width of the beam of the audio output are also increased; and~~

~~a wireless transceiver that is configured to transmit wirelessly the beam attribute input to be received by the apparatus for the beam attribute control unit to control the beam width of the audio output;~~

~~wherein the ultrasonic frequency is configured to have the capability of changing by more than 50% to change the beam width, and~~

~~wherein the ultrasonic frequency is controlled including by selecting a carrier frequency from a predetermined set of carrier frequencies.~~

**PATENT**

28-30. (Cancelled)

31. (New) A handheld electronic remote control as recited in claim 27 further comprising:

a beam-attribute control unit operatively connected to said directional speaker, said beam-attribute control unit being configured to electronically control an attribute of the output of said directional speaker; and

a beam-attribute input mechanism that allows the user to set a beam attribute input for the beam-attribute control unit, wherein the beam attribute input controls the width of the beam of the audio output of the directional speaker by controlling the ultrasonic frequency of the ultrasonic signals so that if the ultrasonic frequency is increased, the attenuation and the width of the beam of the audio output are also increased.

32. (New) A handheld electronic remote control as recited in claim 31, wherein the ultrasonic frequency is controlled including by selecting a carrier frequency from a predetermined set of carrier frequencies, and

wherein the handheld electronic remote control allows the ultrasonic frequency to change by more than 50% to change the beam width.

33. (New) A handheld electronic remote control as recited in claim 31, wherein said system is one of a television system, a Digital Versatile Disc (DVD) player, a compact disc (CD) player, and a Video Cassette Recorder (VCR) player.